

AMENDMENTS TO THE CLAIMS

1-21. (Canceled)

22. (Currently Amended) A method comprising:

receiving a photoelectrically induced signal in an array of photoreceptors on a semiconductor substrate;

controlling each photoreceptor in the array of photoreceptors to simultaneously initiate a common integration period;

at the end of each integration period, controlling each photoreceptor in the array of photoreceptors to transfer its photoelectrically induced signal to a respective ~~separated~~ storage node located within a semiconductor well region formed in the semiconductor substrate; and

preventing said ~~separated~~ storage node from integrating charge, wherein

the storage node is doped to a first conductivity type and

a portion of the semiconductor well surrounding the storage node is doped to a second conductivity type.

23. (Canceled)

24. (Currently amended) A method as in claim 22, wherein said preventing comprises shielding said ~~separated~~ storage node with a light shield overlying at least said ~~separated~~ storage node.

25. (Currently amended) A method as in claim 22, wherein said preventing comprises shielding said ~~separate~~ semiconductor well with a light shield overlying said semiconductor well.

26. (Canceled)

27. (Original) A method as in claim 25, further comprising enabling a first reset operation which resets a value of said storage node, and enabling a second reset operation, which resets a value of said photoreceptor.

28. (Previously presented) A method as in claim 27, wherein said first and second reset operations each comprises activating a gate within said semiconductor well.

29. (Previously presented) A method as in claim 28, wherein said photoelectrically induced signal is a signal indicative of charge produced by said photoreceptor during said integration period.

30. (Original) A method as in claim 28, wherein said photoreceptor includes a photodiode.

31. (Original) A method as in claim 28, wherein said photoreceptor includes a photogate.

32. (Previously presented) A method as in claim 25, further comprising preventing said photoreceptor from acquiring a photoelectrically induced signal which is greater than a pre-determined amount.

33. (Currently amended) A method as in claim 25, further comprising forming a second ~~separated~~ semiconductor well for each of the plurality of photoreceptors in the array.

34-52. (Canceled)

53. (Previously presented) A method comprising:

forming a photosensor in a substrate, the photosensor for forming charges in response to applied light;

forming a first well region in the substrate, the first well region being separated from the photosensor and being doped to a first conductivity type;

forming a storage region located in the first well region, the storage region for collecting charge generated by the photosensor and being doped to a second conductivity type; and

shielding at least a portion of the storage region by forming a shielding layer over the storage region.

54. (Previously presented) The method of claim 53, wherein the storage region comprises a p-type region and the first well region comprises an n-well.

55. (Previously presented) The method of claim 53, further comprising the act of forming a second well region such that said photosensor is located within said second well region.

56. (Previously presented) The method of claim 55, wherein said first and said second well regions are n-well regions.

57. (Previously presented) The method of claim 53, wherein the act of shielding at least a portion of the storage region comprises forming a metal light shield layer over the first well region.

58. (Previously presented) The method of claim 53, wherein the act of forming a photosensor comprises one of forming a photodiode and forming a photogate.